



# **Social Impact Bond Feasibility Study of ‘Just a Change’**

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## **Abstract**

Housing is a fundamental human right and a structural condition of social life. When it fails due to deterioration, insecurity, or inadequacy, its effects extend beyond the physical space, impacting health, well-being, and public spending. Unfortunately, housing poverty in Portugal remains a structural problem that requires preventive and sustainable responses.

This dissertation analyzes the feasibility of applying a Social Impact Bond (SIB) to housing rehabilitation, using the non-profit Just a Change as a case study. The work proposes a SIB model adapted to the Portuguese context, defining the design of the intervention, the outcome metrics, and the logic of payment for results. The model is based on a single payable metric based on the technical certification of “Decent Housing” ensuring contractual simplicity and rigor in the evaluation, while also analyzing the public value associated with the intervention. Overall, the analysis indicates that it is feasible to fund housing poverty reduction interventions through a Social Impact Bond, within the Portuguese context.

**Keywords:** Housing poverty; Housing rehabilitation; Social Impact Bond; Public value; Just a Change

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## **Resumo**

O acesso a habitação é um direito constitucional e uma condição fundamental da vida social de cada cidadão. Quando falha, por degradação, insegurança ou inadequação, os seus efeitos estendem-se para além do espaço físico, repercutindo-se na saúde, no bem-estar e na despesa pública. Infelizmente, a pobreza habitacional em Portugal é um problema estrutural que exige respostas preventivas e sustentáveis.

Esta dissertação analisa a exequibilidade da aplicação de um Social Impact Bond (SIB) à reabilitação habitacional, utilizando a associação sem fins lucrativos Just a Change como estudo de caso. O trabalho propõe um modelo de SIB adaptado ao contexto português, definindo o desenho da intervenção, as métricas de resultado e a lógica de pagamento por resultados. O modelo assenta numa única métrica de pagamento que se baseia na certificação técnica de “Habitação Digna”, assegurando simplicidade contratual e rigor na avaliação, sendo igualmente analisado o valor público associado à intervenção.

De forma geral, a análise sugere que é viável financiar intervenções de redução da pobreza habitacional através de um Social Impact Bond no contexto português.

**Palavras-chave:** Pobreza habitacional; Reabilitação habitacional; Título de Impacto Social; Valor público; Just a Change

**Título:** Estudo de Viabilidade de um Título de Impacto Social na Just a Change

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## **Executive Summary**

Housing poverty has significant effects on health, well-being, and public spending, making housing rehabilitation a social intervention with high preventive potential. This paper analyzes the feasibility of applying a Social Impact Bond (SIB) to housing rehabilitation, using Just a Change as a case study.

The dissertation proposes a SIB model adapted to the Portuguese context, defining the structure of the intervention, the outcome metrics, the verification mechanisms, and the logic of payment for results. The model is based on a single payable metric based on the technical certification of “Decent Housing,” ensuring contractual simplicity and rigor in verification, while secondary outcomes are used exclusively for evaluation purposes.

The financial analysis suggests that, even under conservative assumptions, the estimated public savings exceed the incremental increase in the unit tariff relative to the baseline cost. Overall, the work indicates that a SIB can be a viable instrument for financing and scaling up housing rehabilitation interventions in Portugal, aligning social impact and public value.

## **1. Introduction**

*“Home is where one starts from.” - T. S. Eliot*

Home is the starting point of everyday life. When that starting point fails, when homes are cold, unsafe, or structurally degraded, the effects extend far beyond the physical space, affecting health, dignity, and the ability to participate fully in society. In contexts of housing poverty, home rehabilitation is not just a material improvement: it is an intervention with profound social, economic, and human consequences.

This dissertation stems from a close relationship with this problem in the field. Through continued involvement with Just a Change, as a volunteer and collaborator, it was possible to observe how relatively simple housing interventions produce real and lasting changes in people's lives. At the same time, an academic interest in impact-oriented investments and financial instruments led to the central question of this work: could a Social Impact Bond be an appropriate instrument to finance, sustain, and scale this type of intervention in Portugal?

This work proposes and analyses a Social Impact Bond model applied to Just a Change's housing rehabilitation, seeking to articulate measurable social impact, financial rigor, and the creation of public value.

## **2. Methodology**

The methodology used in this thesis was constructed in an integrated manner, combining documentary analysis through desk-based research, qualitative and quantitative information gathering directly from the team at Just a Change, and the development of a financial model applied to this specific case. The objective was to ensure a rigorous assessment of the feasibility of a Social Impact Bond in the context of housing poverty in Portugal.

The work began with an in-depth analysis of the academic literature and the main technical reports on SIBs, results-based financing and social innovation, including documents from Social Finance, Brookings Institution, OECD, Bridges Ventures and Portugal Inovação Social. This stage allowed me to understand the evolution of the model, identify international patterns, success factors and limitations of SIBs, and map relevant gaps.

This was followed by the collection of information directly from Just a Change, through exploratory meetings with the team and analysis of internal documentation, including impact reports, aggregate financial data, and performance indicators. This interaction allowed for a

deeper understanding of the organisation's intervention model, its operational processes, selection criteria, cost structure, partnerships, and monitoring practices. The information gathered served as the empirical basis for the conceptual structuring of the SIB and the development of the financial model.

The conceptual structuring consisted of defining the operational elements necessary to frame the possible application of the instrument to Just a Change's intervention model. Based on a detailed analysis of the intervention, including the characterisation of the social problem, the target audience, the selection process, the types of intervention, the delivery model and partnerships, the post-project follow-up and the monitoring mechanisms, a methodological adjustment was made to systematise these components in a format compatible with results-based financing models.

Based on this work, essential parameters were defined, such as the organisation of intervention cohorts, the time horizon for observing impact, and the evaluation metrics relevant to the Just a Change model. These elements formed the conceptual foundation necessary for the financial analysis to translate these dimensions into measurable variables.

The final stage consisted of building the financial model using data assumptions provided by the entity. This model simulates the application of a SIB to the Just a Change intervention, integrating:

- Average cost estimates per dwelling.
- Potential public savings with scenarios (conservative, intermediate, and optimistic).
- Modelling of financial flows and expected return with scenarios (fail, achieved, success)

The articulation between the conceptual structure and the financial model enables the quantitative assessment of the sustainability of the instrument and the conditions necessary for its implementation.

### **3. Literature review**

*“People are creating new and more effective answers to the biggest challenges of our times: how to cut our carbon footprint; how to keep people healthy; and how to end poverty.”*

(Mulgan, Caulier-Grice & Murray, 2010, p. 2)

Complex social challenges, such as housing poverty and homelessness, have placed increasing pressure on social protection systems, requiring innovative solutions that go beyond the limits

of traditional approaches. Housing conditions are widely recognised as a key social precedent of health and wellbeing, with inadequate housing contributing to higher social and public health costs (Thomson et al., 2017; WHO, 2018). The need to find alternative, innovative and more effective responses is recognised in the social innovation literature, which emphasises that traditional instruments are no longer sufficient to address today's persistent problems. As Mulgan et al. (2010) point out: *“Traditional tools, while useful, do not go far enough. Some of the biggest impacts now come from service innovations.”* (Mulgan et al. 2010, p. 109).

In recent years, results-based financing mechanisms, such as Social Impact Bonds (SIBs), have emerged as promising financing instruments for aligning incentives between governments, investors and social organisations, promoting tailored and evidence-based interventions (Gustafsson-Wright et al., 2015). This view is reinforced by recent literature, which characterises SIBs as innovative social investment tools: *“Social Impact Bonds are innovative tools for impact investing designed to finance and support public benefit projects.”* (Dahbi et al. 2024, p. 1).

In academic literature, SIBs are increasingly recognised as part of a broader trend towards impact investing and hybrid public-private partnerships that aim to link financial efficiency with social innovation (Warner, 2013; Fox & Albertson, 2011; Fraser et al., 2018; Dahbi et al., 2024). Despite their growth and the advantages associated with this form of financing, they present challenges: *“There is still little evidence or inconclusive findings [...] while for some it is a ‘win-win’ approach, for others it is an inappropriate or highly risky instrument.”* (European Review of Business Economics, 2021, p. 91).

Although the practical implementation of SIBs has expanded rapidly, research has evolved more slowly, with academic studies lagging experimentation and policy implementation (Fraser et al., 2018; Dahbi et al., 2024).

This literature review aims to analyse the concept, origins and mode of operation of SIBs, as well as their success factors and limitations identified in different international contexts, with a particular focus on housing and combating homelessness. To this end, relevant case studies are presented, and innovative financing models are explored. Finally, the case of the Portuguese organisation Just a Change will be analysed to assess the feasibility of applying SIBs in the national context.

### **3.1. Concept, origins, mechanics**

Social Impact Bonds (SIBs), also known as Títulos de Impacto Social in Portugal and Pay for Success in the United States, are a financial innovation developed to address widespread social challenges associated with the most vulnerable and marginalised communities (Social Finance, 2016, p. 12). As presented by Social Finance, this approach comes in response to the difficulty governments face in promoting innovation and creativity in the social domain, where rigid contracts between the public sector and organisations limit the achievement of efficient results, and where the social sector lacks effective mechanisms for achieving success (Social Finance, 2016, p. 12).

These problems continue to pose significant obstacles: existing solutions are highly bureaucratic and universal, creative approaches are lacking, and these groups require tailored responses, all of which generate high costs for the public sector and, consequently, for taxpayers (Social Finance, 2016, p. 12). This aligns with broader public-sector innovation evidence, where *“outcome-based budgets can be used to promote innovation, giving greater freedom to providers to determine how they achieve outcomes”* (Mulgan et al., 2010, p. 150).

A SIB is a public-private partnership that finances effective social services through a performance-based contract. This structure allows governments to collaborate service providers (most often non-profit organisations), using private investment to develop, coordinate or expand effective programmes (Social Finance, 2016, p. 12). As highlighted in the practitioner literature, *“payment-by-results contracts allow for flexibility in service delivery... enabling significantly better outcomes”* (Choosing Social Impact Bonds, 2014, p. 7). After measuring and evaluating the results, if the social intervention achieves the previously defined results and performance metrics, the outcome payer (public sector) reimburses the initial investment to investors, plus a contractually established financial return which is calculated based on the savings accrued to the public sector from the reduced costs of addressing the averted social issue. The whole idea is that the cost of preventing a social issue from happening is lower than the cost of addressing such issue, thereby using the savings from preventing it to remunerate investors through a return. However, if the expected results are not achieved, the payer does not bear the costs associated with non-compliance with the metrics and results, transferring the financial risk to the private sector (Social Finance, 2016, p. 12; Technical Guide to Developing Social Impact Bonds, 2013, p. 3). This mechanism distinguishes SIBs from traditional payment-for-service models, promoting greater efficiency and accountability in the delivery of social solutions.

From an academic perspective, Warner (2013) describes SIBs as instruments of ‘private financing for public goods’, representing a form of market-based governance in which financial incentives are aligned with social objectives. Similarly, Fox and Albertson (2011) frame SIBs as results-oriented mechanisms that challenge conventional models of public administration. Dahbi et al. (2024) confirm these interpretations, noting that the academic debate on SIBs evolved from normative and conceptual analyses to more empirical studies between 2010 and 2022, reflecting growing academic interest.

The origins of SIBs date back to 2007, when Social Finance UK was founded with the aim of exploring the role of early intervention and prevention in social progress, challenging the conventional use of capital markets to finance social programmes (Social Finance, 2016, p. 2). The logic behind this instrument is captured concisely in the literature: “*Social Impact Bonds are a financial tool... Government agrees to pay for measurable outcomes, and this prospective income can be used to raise bond financing*” (Mulgan et al., 2010, p. 80). One of the board members of Social Finance, David Robinson, summarised this view with the metaphor: “*Why put an ambulance at the bottom of a cliff when you can build a fence at the top?*”, emphasising the need to invest in prevention rather than just remedying problems (Social Finance, 2016, p. 2).

Social Finance identified the difficulty that governments face, especially in restrictive fiscal contexts in allocating resources to preventive programmes or encouraging innovation, as well as uncertainty about the effectiveness of services provided to the most vulnerable populations (Social Finance, 2016, p. 2). This finding led to the launch of the first SIB in 2010 in Peterborough, UK, with the aim of reducing reoffending, a milestone that generated global interest by linking a social objective to financial success (Social Finance, 2016, p. 2).

Subsequent expansion included the creation of Social Finance US in 2011 and Social Finance Israel in 2013, culminating in 2016 in a global network spanning various countries (Social Finance, 2016, p. 2).

The adoption of SIBs expanded rapidly, covering more than 60 projects globally by 2016, including Pay for Success in the US and Social Benefit Bonds in Australia, with more than 30 active programmes in the UK committing public funding for a decade and more than 10 agreements in the US, mobilising more than \$100 million in private capital (Social Finance, 2016, p. 2).

According to Dahbi et al. (2024), this practical expansion was not initially accompanied by academic research. A Systematic Literature Review (SLR), which analysed 116 scientific articles published between 2010 and 2022, revealed that although implementation peaked in 2017, scientific output only peaked in 2020. The authors also point out that much of the research is geographically concentrated in the UK and the US, with limited coverage of southern European countries such as Portugal. This highlights a clear gap in the literature regarding the study of SIBs in Portuguese contexts and in sectors such as housing poverty.

The expansion of SIBs covered several countries and populations, addressing issues such as criminal justice, homelessness, child and youth protection, pre-school education and youth development (Social Finance, 2016, p. 2). According to the Brookings Institution's Global Impact Bonds database (2025), the model had reached 240 SIBs contracted in 40 countries by June 2025, contributing to a total of 259 impact bonds, including 19 Development Impact Bonds.

In the European context, there are numerous programmes in various countries, notably the Social Impact Bonds (SIB) Programme in Portugal, launched in 2015 and promoted by Portugal Inovação Social under PT2020, with 22 projects approved until 2024 and applications open until December 2025 (Portugal Inovação Social, 2024).

The Portuguese experience thus represents an emerging but still poorly studied context. Dahbi et al. (2024) note that although Portugal is among the leading European countries in terms of the number of SIB projects (23 initiatives in 2022), there are few academic studies that analyse these cases in depth. This scarcity reinforces the originality and academic relevance of applying a feasibility analysis of SIBs to the housing sector in Portugal, as proposed in this study.

The relevance of SIBs to contexts such as housing poverty, central to the research question on the feasibility of financing Just a Change, lies in their ability to align incentives across sectors, promoting tailored and preventive interventions for vulnerable populations. The analysis of case studies, particularly in areas such as housing and combating homelessness, provides important support for the application of this model to Portuguese organisations.

## **3.2. Case studies**

### **3.2.1. Aspire Social Impact Bond (Australia)**

The Aspire Social Impact Bond was launched in 2017 in South Australia and was the first Australian social impact bond specifically designed to combat chronic homelessness. With an

initial investment of approximately \$9 million raised from private investors, the programme followed the Housing First model, providing stable housing and intensive support in health, employment and social reintegration to adults experiencing persistent cycles of homelessness.

According to Social Ventures Australia, Aspire saw significant improvements among participants, including increases in housing stability and reductions in the use of emergency services and interactions with the justice system. These results reinforced the potential of outcomes-based financing to address complex social problems.

The SIB contract ended in 2024, but due to its demonstrated effectiveness, the South Australian Government decided to extend the programme through direct public funding under the name Aspire X, ensuring its continuity until at least 2027.

### **3.2.2. Foyer Central Social Impact Bond (Australia)**

The Foyer Central Social Impact Bond, launched in 2021 in Sydney, is Australia's first SIB specifically targeting young people at risk of homelessness, particularly those transitioning out of the state Out-of-Home Care system. The programme offers 53 independent housing units, allowing approximately 270 young people to be supported over the life of the contract, combined with intensive 24-hour support, complemented by education, employability, health and personal development programmes.

The financial model involves an initial private investment of approximately AUD 7 million and payments conditional on the achievement of results, namely: maintenance of independent housing, access to employment or education and reduction in the use of emergency services and social housing.

The project operates under a results-based contract with an expected duration of around 9 years, in line with the logic of innovative and preventive financing instruments.

The Central Foyer demonstrates how SIBs can mobilise private investment to promote the social inclusion of vulnerable young people, while encouraging the development of long-term skills and autonomy.

### **3.2.3. London Homelessness Social Impact Bond (United Kingdom)**

The London Homelessness Social Impact Bond was launched in December 2012 with the aim of supporting people experiencing persistent homelessness in the city of London. The programme used a results-based financing model, drawing on private investment to fund ongoing support services, with payments conditional on achieving targets such as sustainable

access to housing, reducing the number of people sleeping rough, and reducing the use of emergency services.

The official evaluation of the programme, published in 2017 by the Department for Communities and Local Government, revealed significant results: 37% of participants supported through the SIB were able to access permanent accommodation after two years, compared to 4% in the control group. There were also significant reductions in the use of emergency services and time spent on the streets.

However, the evaluation identified important challenges, namely the need for continuous monitoring and the diversity and complexity of individual situations, which required adaptations to the service model. Nevertheless, the SIB demonstrated the effectiveness of results-based funding in promoting more sustainable and targeted solutions to persistent homelessness.

From an academic perspective, Cooper et al. (2016) interpret the London Homelessness SIB as an example of the financialization of social policies, showing how financial logic is integrated into the response to social problems. Complementarily, Dowling (2017) argues that SIBs, in the context of austerity policies, can reinforce market dynamics and dependence on private investment. Together, these critical readings offer a balanced framework for understanding SIBs, highlighting both their potential for innovation and the risks associated with their design and implementation, thus providing a relevant transition to the analysis of their success factors and limitations.

### **3.3. Success factors and limitations of Social Impact Bonds**

The case studies reveal that SIBs can generate positive results in areas such as homelessness, while also highlighting factors for success and limitations in their implementation, which are explored below.

#### **3.3.1. Success factors**

One of the advantages most often associated with SIBs is their explicit focus on measurable results, which guides intervention and creates clear accountability mechanisms. The literature consistently highlights that SIBs reorient social interventions away from inputs and processes towards clearly defined outcomes, reinforcing the centrality of objective and verifiable goals (Gustafsson-Wright et al., 2015; OECD, 2016). This shift is clearly captured by Brookings, which argues that under impact bonds “instead of paying for services, government pays for

outcomes” (Brookings Institution, 2018, p. 49). Along the same lines, Social Finance (2016) explains that Social Impact Bonds are structured around an upfront government commitment to pay for measurable outcomes, allowing private capital to be mobilised to finance service delivery.

Another relevant factor is the capacity for adaptation and continuous learning, made possible by real-time data collection systems. The effectiveness of services depends on the existence of robust monitoring processes: *“A good indicator of using results to inform service delivery is whether the service provider has a data collection and reporting system capturing accurate and timely data.”* (Bridges Ventures & Bank of America, 2014, p. 19)

The same report also stresses the importance of rapid response based on reliable information, stating that: *“Timely decisions need to be made in response... This requires a robust governance structure.”* (Bridges Ventures & Bank of America, 2014, p. 19)

In addition, the collaborative structure of SIBs, which brings together public entities, investors, service providers and independent evaluators, creates conditions for more consistent coordination and greater clarity in the distribution of responsibilities. Experience documented in various projects shows that consultants and evaluators play a key role in ensuring rigour, alignment and credibility in the evaluation of results.

### **3.3.2. Limitations**

Despite their potential, SIBs have significant structural and operational limitations. Among the most frequently cited are high transaction costs and contractual complexity, which are often underestimated. As recognised in the literature: *“High transaction costs are often underestimated.”* (Social Impact Bonds: A Review of Their Strengths and Weaknesses, 2021, p. 88)

Another critical challenge relates to the definition and measurement of social impact. The need for simple and quantifiable metrics may favour interventions that are easier to measure, but not necessarily the most transformative ones. This tension is clearly summarised: *“It is not easy to measure the (true) social impact of the projects.”* (Social Impact Bonds: A Review of Their Strengths and Weaknesses, 2021, p. 88)

The dependence on political and institutional stability is equally relevant. The continuity of a SIB requires that the government maintain its commitment to pay if the results are achieved,

which can be compromised by changes in government, electoral cycles, or changes in strategic priorities.

Challenges also exist in relation to coordination between stakeholders. Coordination between entities with different missions, cultures, and levels of experience can lead to information asymmetries, delays, and operational difficulties. This weakness is summarised as follows: *“The difficulty of coordination should be considered, given the classic asymmetry of information between the various players.”* (Social Impact Bonds: A Review of Their Strengths and Weaknesses, 2021, p. 88)

### **3.4. Just a Change: mission, model and alignment with SIB viability factors**

Just a Change is a Portuguese non-profit organisation founded in 2010, dedicated to renovating dilapidated housing for families in situations of housing poverty. Its mission focuses on combating poverty through the restoration of houses and, more recently, community centres, mobilising national and international volunteers, local communities and partner companies (Just a Change, 2024). Since its creation, the organisation has carried out more than 500 interventions and impacted the lives of more than 21 000 beneficiaries in Portugal.

The intervention model is based on three structural pillars:

1. Mobilisation of volunteers, which reduces operating costs and promotes civic and community involvement.
2. Strategic partnerships with companies and foundations, which provide financial resources, materials and technical knowledge.
3. Sustainable and personalised interventions, adapted to the conditions and needs of each household, ensuring lasting social impact.

This model reveals a strong correlation with the feasibility factors identified in the literature on Social Impact Bonds (SIBs). First, Just a Change presents clear and measurable results: number of houses repaired, families benefited, improvements in thermal comfort, safety, or well-being. These indicators are compatible with results-based contracts, often highlighted as an essential condition for structuring a SIB (Gustafsson-Wright et al., 2015).

Secondly, the organisation has consolidated experience in multisectoral collaboration, involving local councils, social economy organisations, companies and foundations. This diverse network responds to one of the central needs of SIBs: effective coordination between

different stakeholders, highlighted in several studies as a determining factor for the success and credibility of these instruments.

Furthermore, Just a Change's focus on preventive and sustainable interventions, rather than merely reactive responses, is in line with the social investment logic promoted by models such as SIBs. Reports by Social Finance (2016) and the OECD (2016) emphasise that preventive interventions can reduce future costs associated with health, social exclusion, absenteeism, or housing instability. In this sense, the rehabilitation of unsafe or inadequate housing acts as a mechanism for preventing problems whose future resolution would be substantially more costly for the public sector.

The experience accumulated by the organisation, combined with its monitoring and reporting systems, reinforces its ability to demonstrate impact and generate empirical evidence an element considered crucial in the evaluation and functioning of SIBs. In Portugal, the institutional framework promoted by Portugal Inovação Social has already made it possible to test similar mechanisms, revealing the existence of a favourable ecosystem for results-based financing instruments.

Thus, Just a Change has characteristics that are broadly aligned with the feasibility requirements of SIBs, representing a relevant case for evaluating the application of this model in combating housing poverty in Portugal.

The literature analysed confirms that SIBs are an innovative social financing instrument capable of aligning incentives between governments, investors and civil society organisations. Although they face structural limitations, such as financial complexity and dependence on robust metrics, international studies demonstrate the potential of these instruments to generate impact in critical areas such as housing and homelessness prevention.

In the European and Portuguese context, housing poverty emerges as a multidimensional problem that affects not only the right to decent housing, but also physical and mental health, educational performance and employability. The urgency of this challenge, coupled with the limitations of traditional public responses, reinforces the need to explore innovative financial mechanisms that allow for testing, scaling up and evaluating effective interventions.

In this context Just a Change stands out as a housing rehabilitation model based on volunteering, partnerships and tangible results which is highly aligned with the success factors identified in SIBs.

Furthermore, this case directly addresses the gaps identified by Dahbi et al. (2024):

- (i) the absence of studies on SIBs in Portugal,
- (ii) the scarcity of quantitative feasibility models,
- (iii) and the limited representation of areas such as housing and poverty in the existing literature.

By applying a financial viability analysis to the Just a Change case, this study contributes both to the academic deepening of the topic and to the debate on innovative solutions to combat housing poverty.

### **3.5. Identified gap and contribution**

The literature review reveals three main research gaps (Dahbi et al., 2024):

1. **Geographical concentration** - most SIB studies analyse Anglo-Saxon contexts (UK, USA, Australia), while Southern Europe, including Portugal, remains underexplored.
2. **Sectoral bias** - dominant sectors include employment, child welfare, and health, whereas housing and homelessness receive limited academic attention.
3. **Methodological imbalance** - most studies are qualitative or mixed-method; few apply quantitative feasibility or financial modelling.

This thesis contributes to the academic literature by:

- Expanding the empirical evidence base to Portugal, an emerging but under-studied SIB ecosystem.
- Applying a quantitative feasibility analysis to the housing poverty sector, bridging the gap between qualitative insights and financial evaluation.
- Demonstrating how organisations like Just a Change can operationalise SIB mechanisms to achieve measurable social outcomes in housing rehabilitation.

By explicitly addressing the gaps mapped by Dahbi, Carrasco and Petracci (2024), this research strengthens the academic foundation of SIB studies and provides context to the Portuguese experience within global debates on impact investing, public-private collaboration, and social innovation.

## **4. Housing poverty in Portugal: scale, drivers and implications**

### **4.1. Definitions, criteria and conceptual framework**

Housing poverty is a form of material deprivation that goes beyond the mere absence of accommodation. It involves living in conditions that do not guarantee minimum standards of safety, health, comfort and dignity. According to the National Statistics Institute (INE), housing poverty results from the accumulation of various dimensions of deprivation that affect the quality and adequacy of housing, including physical, economic and social aspects (INE, Survey on Living Conditions and Income - ICOR 2021, 2023, 2024).

On a physical level, INE defines severe housing deprivation as a situation in which a household lives in overcrowded accommodation with at least one of the following structural problems: no bath or shower inside the dwelling; no flush toilet; leaks, damp or mould; or lack of natural light on a sunny day (INE, ICOR 2024). Overcrowding, in turn, is assessed according to criteria that relate the number of habitable rooms to the composition and age of the household members (INE, ICOR 2021; 2023).

Housing poverty also includes economic dimensions, namely the inability to financially bear the costs of housing, such as paying rent, mortgage payments or expenses associated with heating, electricity or maintenance. These constraints are particularly relevant in the Portuguese context, where INE includes “excessive housing costs” as an indicator of material deprivation (INE, ICOR 2024). Housing poverty is therefore inseparable from economic vulnerability and income constraints that prevent access to decent living conditions.

Housing poverty is also manifested through energy inefficiency, an element that affects both the thermal comfort and physical well-being of residents. INE, through its Survey on Living Conditions and Income (ICOR), describes the inability to keep the home adequately heated as a critical sign of housing deprivation, especially among households with lower incomes (INE, ICOR 2023; 2024).

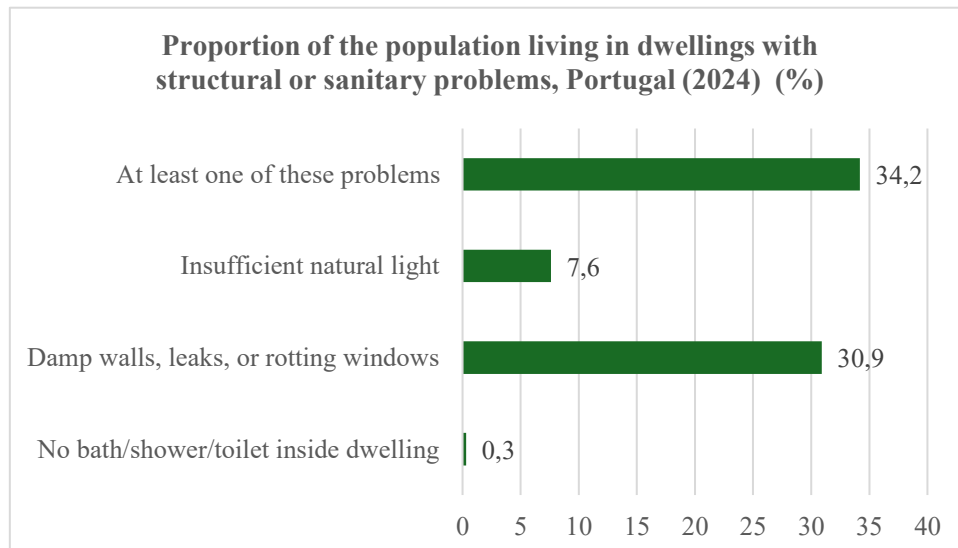
The operational definition adopted by civil society organisations, such as Just a Change, reinforces this understanding by characterising housing poverty as a situation in which individuals and families live in degraded, unsafe, thermally inefficient or structurally compromised homes, making it impossible to fully enjoy basic conditions of health, comfort and dignity (Just a Change, Impact Report, 2024).

## **4.2. Housing poverty in Portugal: prevalence and key Indicators**

Housing poverty in Portugal is a structural issue, affecting the quality of life of thousands of families. According to the Survey on Living Conditions and Income (ICOR 2024), 4,9% of the population lived in severe housing deprivation and 11,2% lived in overcrowded accommodation (INE, ICOR 2024). Although these figures represent an improvement on the figures recorded in 2023, 6,0% and 12,9% respectively (INE, ICOR 2023), they demonstrate a structural shortage of adequate housing conditions.

The incidence of deprivation is significantly higher among households at risk of poverty. In 2024, 10,1% of these households lived in severe deprivation and 17,3% in overcrowded conditions, reinforcing the link between insufficient income and inadequate housing (INE, ICOR 2024). Among children and young people up to the age of 17, vulnerability is even more pronounced: 19,9% lived in overcrowded accommodation and 8,7% faced severe deprivation, demonstrating the intergenerational nature of housing poverty (INE, 2024).

In addition to overcrowding, significant structural weaknesses persist in Portuguese housing stock. In 2024, 34,2% of the population lived in dwellings with at least one structural problem, such as leaks, damp, window deterioration or lack of natural light (INE, ICOR 2024). These problems are strongly associated with thermal discomfort, physical instability of the building and increased risks to the well-being of residents.

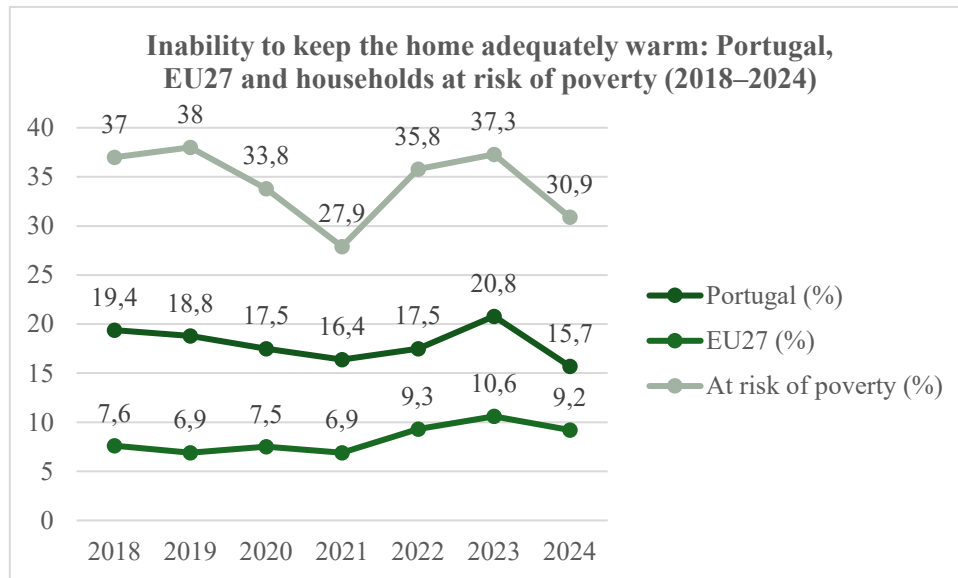


*Graph 1 - Structural and sanitary housing deficiencies*

*Source: Statistics Portugal (INE), Survey on Income and Living Conditions (ICOR), 2024*

The economic dimension of housing poverty is also reflected in the inability to keep homes adequately heated, a key indicator of energy poverty. In 2024, 15,7% of Portuguese households

reported being unable to heat their homes, a proportion that rose to 30,9% among households at risk of poverty (INE, ICOR 2024). These figures contrast sharply with the European Union average (9,2%), confirming the country's structural lag in the field of thermal and energy efficiency.



*Graph 2 - Inability to keep the home adequately warm over time*

*Source: Eurostat; Statistics Portugal (INE), EU-SILC / ICOR*

Additional data presented by Just a Change reinforce this reality: according to the 2024 Impact Report, more than 165 000 people in Portugal live in homes that are unable to guarantee thermal comfort in winter, a situation that exacerbates social vulnerabilities and exposes thousands of families to increased risks (Just a Change, 2024).

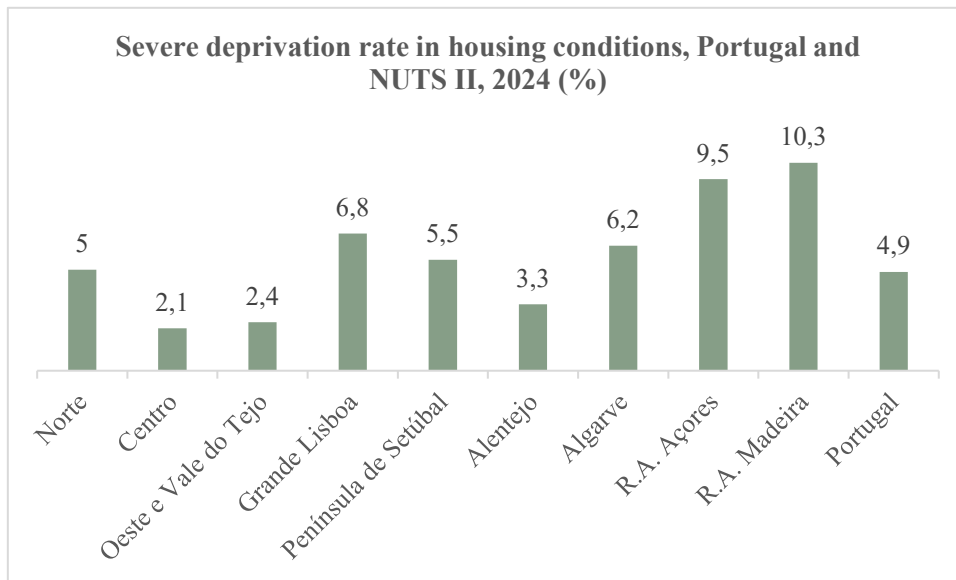
### **4.3. Economic pressures and territorial inequalities in housing conditions**

Affordability of housing in Portugal has been deteriorating, especially among lower-income households. According to the results of the 2024 Survey on Living Conditions and Income (INE, ICOR 2024), the median financial burden of housing expenses increased from 9,7% in 2023 to 12,0% in 2024, highlighting the growing financial pressure associated with accessing and maintaining adequate housing. This pressure is particularly high for the population at risk of poverty, which has a median financial burden of 22,5%, more than double the figure observed among those who are not at risk, 10,4% (INE, 2024).

The territorial distribution of these difficulties reveals marked disparities. Greater Lisbon (13,4%) and Algarve (12,8%) have the highest levels of financial effort, while regions such as the Centre and the Autonomous Regions have lower values (INE, ICOR 2024, Fig. 12). The

differences are also present in the overburden rate, the proportion of households that spend more than 40% of their disposable income on housing expenses, which reaches 6,9% nationally, but exceeds 10,5% in Greater Lisbon and 8,3% in the Algarve (INE, ICOR 2024, Fig. 14). Among households at risk of poverty, this rate rises significantly to 25,9%, highlighting extreme economic vulnerability.

Together, these indicators show that economic accessibility to housing in Portugal is the result of a combination of financial pressures and territorial inequalities, affecting vulnerable households most severely. This reality reinforces the need for differentiated and territorially adjusted policies, as well as innovative financing instruments that can respond to the multiple dimensions of housing poverty.



*Graph 3 - Severe housing deprivation by region (NUTS II)*

*Source: Statistics Portugal (INE), Survey on Income and Living Conditions (ICOR), 2024*

#### **4.4. Social impacts of housing deprivation and existing responses**

Housing poverty is both a cause and a consequence of multiple forms of social vulnerability. The physical conditions of housing directly influence health, psychological well-being, disposable income, educational success and community integration. Scientific evidence shows that living in cold, damp or structurally degraded homes increases the incidence of respiratory and cardiovascular diseases, as well as mental health problems, disproportionately affecting children, older people and families living in poverty (Thomson et al., 2017; WHO, 2018; Institute of Health Equity, 2011).

In Portugal, the response to this reality has been partially ensured by civil society organisations, among which Just a Change stands out. According to its 2024 Annual Report, the organisation has rehabilitated 115 private homes and 68 institutions, directly impacting 240 people and, through social institutions, 6 409 beneficiaries in 27 municipalities (Just a Change, 2024). These interventions mobilised 7 415 volunteers and represented a total investment of €1.73 million.

The impact assessment carried out in partnership with Social Data Lab shows significant results. One year after the intervention, there was an average improvement of 66% in the beneficiaries' quality of life, measured using a multidimensional model that integrates physical, personal, social and professional/educational dimensions. At the same time, technical assessments based on the National Civil Engineering Laboratory (LNEC) habitability model show that the intervention of Just a Change eliminates 87% of the health risks identified and 92% of the safety risks observed before the work (JaC Impact Report, 2024). These results confirm that housing rehabilitation generates rapid and measurable improvements, reducing exposure to risks, increasing thermal comfort and strengthening the autonomy and social inclusion of families.

The persistence of high levels of housing poverty, combined with the proven impact of rehabilitation interventions, demonstrates that the response to the problem must go beyond one-off actions and take on a structural dimension. In this context, innovative instruments such as Social Impact Bonds emerge as an opportunity to mobilise private investment, direct resources towards verifiable results, and finance sustainable solutions that promote decent housing, energy efficiency, and collective well-being.

## **5. Just a Change: target audience, beneficiaries and intervention methodology**

Just a Change's work is based on an integrated model that combines rigorous identification of needs, community mobilisation, multisectoral partnerships, specialised technical execution and systematic impact assessment. This set of practices allows for an effective response to housing poverty, producing measurable and sustainable social benefits.

### **5.1. Beneficiary profile and eligibility criteria**

Just a Change's beneficiary population consists of families and individuals living in severe housing poverty, characterised by degraded structural conditions, physical insecurity, lack of thermal comfort and economic impossibility of autonomous rehabilitation. This target audience includes low-income families at risk of poverty or exclusion; elderly people who are isolated

or have functional limitations; people with disabilities; families with children exposed to housing risks; degraded social institutions that take in vulnerable populations.

Identification is carried out in conjunction with municipal councils, parish councils and IPSS (Private Social Solidarity Institutions), which flag cases of urgent need. Each dwelling is then subject to a technical visit, where the state of repair, existing risks and the socio-economic situation of the household are assessed.

In 2024, the organisation intervened in 27 municipalities, rehabilitating 115 private homes and 68 social institutions, directly benefiting 240 people and indirectly benefiting 6 409 through the improvement of institutions (Just a Change, 2024).

## **5.2. Just a Change intervention methodology**

### **5.2.1. Identification, signalling and selection**

Beneficiaries are selected based on three cumulative criteria: socioeconomic vulnerability (income below the poverty line, unemployment, or minimum pensions), severely degraded housing conditions (persistent dampness, degraded roofing, unsafe electrical installations, lack of insulation), and the presence of vulnerable groups, namely children, the elderly, or people with disabilities. In 2024, interventions focused mainly on the regions of Centro, Interior Norte, and Alentejo, areas with particularly high levels of housing deprivation.

### **5.2.2. Community mobilisation and volunteering**

The implementation of interventions relies heavily on the mobilization of volunteers, organized through four distinct programs. **Turn Ups** consist of weekly volunteer sessions during the school year, held in Lisbon, Porto, and Minho. **Camp Ins** are immersive summer camps, lasting approximately 15 days, characterized by high work intensity and strong community involvement. **Bootcamps** are short-term intensive programs, usually lasting one week, designed to accelerate the start of interventions at the beginning of each semester. **All Ins** are corporate volunteering initiatives aimed primarily at social institutions, integrated into corporate social responsibility strategies.

In 2024, 7 415 volunteers were mobilized, including 1 524 individual volunteers and 5 891 participants from corporate partners. All interventions are monitored by qualified technical teams, ensuring adequate safety and quality standards.

### 5.2.3. Multisectoral partnerships and financing

The intervention model is based on coordination between the public, private, and social sectors. The public sector supports case identification, licensing processes, and institutional framework. The private sector contributes through financing, material donations, and participation in All In programs, involving companies such as Leroy Merlin, EDP, IKEA, Saint-Gobain, and Galp. The social sector ensures the monitoring of beneficiaries and continuity after the intervention.

In 2024, Just a Change raised €3 242 589 and mobilized €84 431 of its own funds. Annual expenditure was distributed across interventions in private housing (€1 726 571), interventions in institutions (€335 874), human resources (€698 209), and operating costs (€299 182). That year, 115 private homes and 68 institutions were renovated, covering 240 direct beneficiaries and 6 409 indirect beneficiaries (social institutions) in 27 municipalities. Compared to 2022 and 2023, these results reflect significant growth in the model, particularly in terms of the number of homes and institutions involved, municipalities covered, and total investment volume.

Dimension	Value (2022)	Value (2023)	Value (2024)
Private homes rehabilitated	66	85	115
Social institutions rehabilitated	36	43	68
Direct beneficiaries	137	167	240
Indirect beneficiaries (social institutions)	3504	5308	6409
Municipalities covered	14	19	27
Volunteers mobilised	3853	5119	7415
Total investment in works and operations	€589 857	€971 649	€1 726 571
Total funds raised by the organisation	€1 521 765	€2 190 117	€3 242 589

*Table 1 - Evolution of activity, territorial coverage and funding of Just a Change (2022 - 2024)*

### 5.2.4. Technical implementation of interventions

Each intervention is preceded by a technical diagnosis, based on which a work plan is defined and tailored to the identified needs. Interventions include structural repairs (roofs, floors, damp

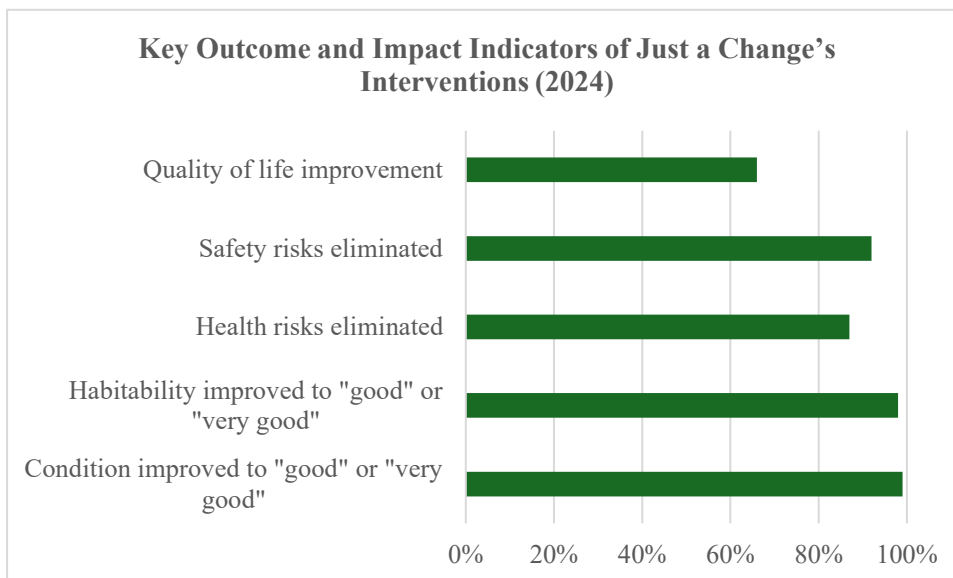
treatment, electrical and water networks), improvements in thermal comfort (insulation, doors, and windows), and, whenever possible, energy efficiency measures. Sustainable and low-maintenance materials are preferred in terms of selection.

Beneficiaries are involved in the process whenever possible, promoting agency, autonomy and ownership of the intervention.

### **5.2.5. Monitoring and impact assessment**

The assessment is carried out in partnership with Social Data Lab and is based on three levels of indicators. Activity indicators measure the volume of intervention (housing, volunteers, institutions, and municipalities). Outcome indicators assess the physical improvement of housing, based on a model adapted from LNEC. Impact indicators capture changes in the lives of beneficiaries in terms of physical, personal, social, and professional dimensions.

In 2024, 99% of homes improved their condition to levels classified as “good” or “very good,” 98% recorded improvements in habitability, 87% of health risks and 92% of safety risks were eliminated, and an average improvement of 66% in quality of life was observed one year after the intervention. The data is collected through structured interviews and integrated into a proprietary model based on depth, permanence, peculiarity, initial severity, and perceived reciprocity.



*Graph 4 - Key outcome and impact indicators of housing rehabilitation interventions*

*Source: Just a Change, Impact Report 2024*

## 6. Social Impact Bond intervention model

Following the analysis of the literature, the housing poverty context in Portugal and the intervention model of Just a Change, the definition of the proposed Social Impact Bond intervention model is presented. This section focuses on the scope, target, operational and financial logic, with the aim of structuring a viable model applicable in a real-world context.

<b>Intervention dimension</b>	<b>Core design choice</b>	<b>Rationale</b>
<b>Territorial scope</b>	Intervention focused on selected municipalities in Alentejo and southern Setúbal	Ensures operational feasibility, territorial coherence and alignment with existing implementation capacity
<b>Target population</b>	Households experiencing housing deprivation and socio-economic vulnerability	Concentrates resources on cases with limited self-investment capacity, ensuring social additionality
<b>Case identification and selection</b>	Referral through local partners combined with technical and social assessment	Guarantees transparency, equity in access and alignment with results-based financing requirements
<b>Intervention design</b>	Combination of moderate and severe housing rehabilitation interventions	Allows tailored responses to heterogeneous housing needs while ensuring minimum habitability standards
<b>Implementation and Partnerships</b>	Camp In operational model supported by public, social and private sector partnerships	Enhances efficiency, community engagement and scalability of the intervention
<b>Monitoring and Verification</b>	Baseline definition, follow-up assessments and independent verification	Ensures measurable, verifiable outcomes and credibility of results-based payments
<b>Cohorts and Time Horizon</b>	Three annual cohorts with phased implementation	Enables operational planning, learning effects and robust evaluation over time

*Table 2 - SIB Intervention Model*

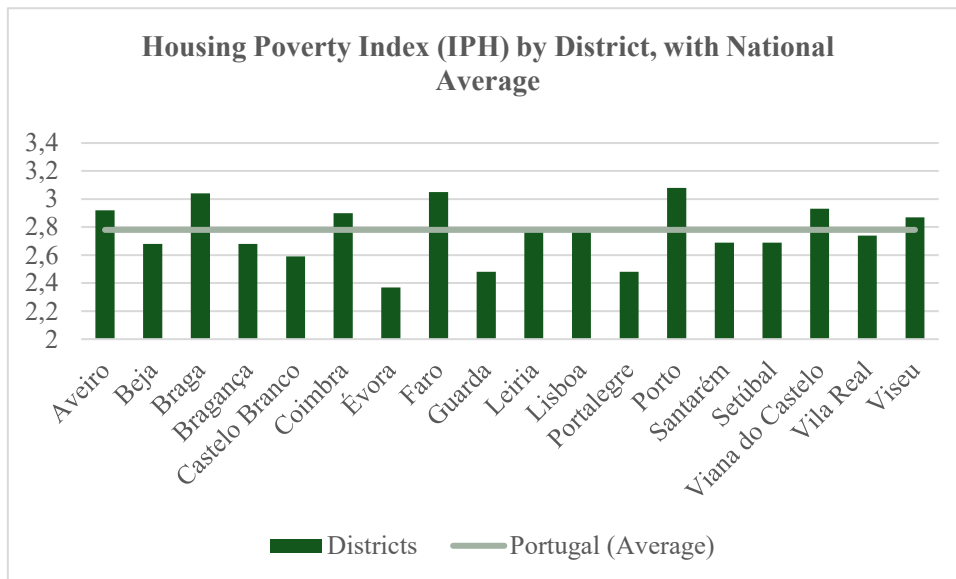
### 6.1. Scope and territorial delimitation of the intervention

The proposed Social Impact Bond focuses on housing rehabilitation in areas where Just a Change has consolidated operational experience, namely in the Alentejo region and in the southern part of the district of Setúbal. The choice of these areas ensures logistical consistency,

efficiency in the mobilization of volunteers, and feasibility of monitoring, which are essential elements for the implementation of a pilot SIB based on the Camp In model.

The territorial delimitation was based on the Housing Poverty Index (IPH), developed by Just a Change in partnership with Wimmer, which assesses housing deprivation in Portugal's 308 municipalities. The index has a national average of 2,8 on a scale of 1 to 5 and aggregates three main dimensions: housing conditions (90%), economic accessibility (5%), and climatic conditions (5%). Housing conditions include, among other factors, the state of repair of the building, the presence of leaks and damp, thermal insulation, access to sanitation, overcrowding, energy efficiency, and digital connectivity.

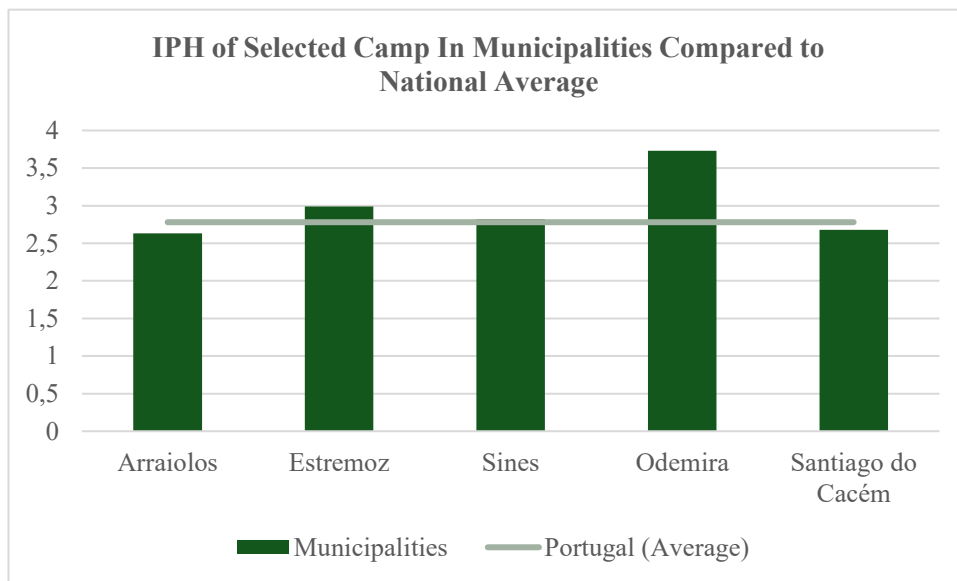
Based on this indicator and operational relevance, the districts of Setúbal, Beja, and Évora were initially selected, as they have IPH values close to the national average, reflecting significant levels of structural deprivation. Although these districts do not contain the most critical municipalities at the national level, they represent territorial realities with persistent vulnerabilities and where Just a Change's intervention is logistically feasible.



*Graph 5 - Housing Poverty Index by district*

*Source: Just a Change, Pobreza Habitacional (adapted by the author)*

Within these districts, five Camp In operational hubs were defined: Arraiolos (IPH 2,63), Estremoz (IPH 2,99), Sines (IPH 2,82), Odemira (IPH 3,73), and Santiago do Cacém (IPH 2,68). This selection combines municipalities with levels of housing deprivation below the national average (Arraiolos and Santiago do Cacém) with municipalities above that average (Estremoz, Sines, and Odemira). This configuration allows for the observation of different impacts depending on the severity of the initial conditions and ensures a balanced territorial representation within the scope of the SIB pilot. The geographical proximity between the selected municipalities further reinforces the operational efficiency required by an intervention based on the Camp In model.



*Graph 6 - Housing Poverty Index in selected municipalities*

*Source: Just a Change, Pobreza Habitacional (adapted by the author)*

### **6.3. Target population, eligibility criteria, and expected reach**

The SIB's target population consists of households in situations of significant housing deprivation, whose capacity to respond autonomously to housing conditions is limited. Defining eligibility criteria is central to ensuring that the intervention responds to real social needs and meets the requirements of measurability and verifiability inherent in a results-based financing model.

Households are considered eligible if they meet one or more of the following conditions: structural or safety deficiencies with a direct impact on health and well-being, namely serious leaks, persistent damp, deterioration of roofs, walls, or floors, obsolete or unsafe electrical installations, inadequate ventilation, or insufficient thermal insulation; low economic capacity,

reflected in incomes below or close to the poverty threshold, according to national indicators (INE/EU-SILC); and the presence of particularly vulnerable individuals in the household, such as children, the elderly, people with disabilities, or chronic illnesses.

Prioritizing these households allows the SIB to act in contexts where the capacity for self-investment is more limited, ensuring social additionality, i.e., an impact that would be unlikely to occur in the absence of this innovative financing mechanism.

Considering the operational capacity of the Camp In program, the intervention provides for the rehabilitation of around 20 homes per year. Assuming an average household size of 2,09 people, it is estimated that the SIB could benefit approximately 42 people per year and around 125 beneficiaries over the three years of implementation, although these figures may vary depending on the actual composition of households in each municipality.

#### **6.4. Case identification, integrated diagnosis, and cohort formation**

The identification and selection of beneficiaries is based on a structured and transparent process, aligned with the requirements of a results-based financing model. Cases are mainly referred by local partner entities, including private social solidarity institutions, municipal social services, parish councils, and community organizations with direct knowledge of situations of housing deprivation. Referrals are submitted via a digital form, ensuring uniformity of information and traceability of decisions.

After an initial pre-assessment phase, in which compliance with eligibility criteria is verified, eligible cases are subject to a technical and social visit to the home. This visit allows the severity of the housing conditions to be confirmed, the socioeconomic context of the household to be assessed, and information to be collected for an integrated diagnosis.

The technical diagnosis is based on the adaptation of the assessment matrix of the National Civil Engineering Laboratory (LNEC), already used by Just a Change, focusing on the conditions of conservation and habitability. At the same time, a social assessment is carried out in collaboration with the local partner entity, focusing on income, household composition, levels of dependency, health risks, support networks, and degree of social isolation.

Based on this integrated diagnosis, cases are assessed according to criteria of vulnerability, urgency, technical feasibility, and consistency with the program's annual capacity, and are subsequently integrated into the corresponding cohort, estimated at around 20 homes per year.

## 6.5. Intervention design and operational implementation

Interventions under the SIB follow the Just a Change operational model and are organized into two main categories: moderate rehabilitation and severe rehabilitation. Moderate rehabilitation includes interventions of lesser technical complexity, such as damp treatment, replacement of degraded window frames, occasional electrical repairs, and improvement of ventilation or thermal insulation. Severe rehabilitation applies to situations where the safety of occupants is compromised and may involve roof replacement, complete renovation of electrical or sanitation networks, structural reinforcement, or essential adaptations to habitability.

Regardless of the type of intervention, all works follow minimum standards of results in terms of safety, habitability, and thermal comfort, ensuring consistency and comparability between cases. Implementation is based on a combination of specialized technical teams, structured volunteering, and a network of local partnerships. The public sector contributes to identifying cases and institutional coordination, the social sector ensures the monitoring of beneficiaries, and the private sector provides support through donations, the supply of materials, and corporate volunteering. Quality control is guaranteed through an internal interim verification and a final independent technical audit, which certifies compliance with the minimum criteria defined.

<b>Component</b>	<b>Key elements</b>	<b>Responsible actors</b>
<b>Intervention types</b>	Moderate and severe housing rehabilitation	Just a Change technical teams
<b>Delivery model</b>	Camp In programme combining volunteers and technical supervision	Just a Change
<b>Local coordination</b>	Case identification and facilitation	Municipalities, IPSS, parish councils
<b>Resource mobilisation</b>	Materials, logistics and corporate volunteering	Private partners
<b>Quality control</b>	Interim checks and final technical validation	Just a Change + independent auditor

*Table 3 - Operational components and responsibilities within the intervention model*

## 6.6. Monitoring, results, and verification

The monitoring of the intervention follows the fundamental logic of SIBs, structured around baseline, outputs, and outcomes. The initial technical and social diagnosis constitutes the baseline for each case. After completion of the works, follow-ups are carried out at 3, 6, and 12 months to assess the evolution of conservation and habitability conditions, as well as relevant social effects, such as improved thermal comfort, reduced health risks, increased subjective well-being, and greater autonomy for beneficiaries.

The final evaluation includes an independent technical and social audit, which validates the results achieved and certifies compliance with the criteria for “decent home”. This certification triggers the payment for results provided for in the SIB model, ensuring transparency, rigor, and credibility for investors and public financing entities.

Stage	Type of indicator	Verification method
Baseline	Housing conditions and social vulnerability	LNEC-adapted technical checklist and social diagnosis
Output	Immediate improvements in safety, comfort and habitability	Internal records, technical visits and beneficiary surveys
Outcome (6 - 12 months)	“Decent home” certification and well-being improvements	Independent technical audit and external social assessment

*Table 4 - Monitoring framework, indicators and verification methods*

## 6.7. Cohorts and time horizon

The SIB will be implemented over three annual cohorts, distributed in 20 homes by year, corresponding to an estimated total of 60 rehabilitated dwellings. This phased structure allows for more efficient operational planning, progressive financial management, and easier comparison of results between cohorts.

Cohort	Period	Number of Dwellings	Purpose
Cohort 1	Year 1	20	Initial implementation and validation
Cohort 2	Year 2	20	Operational consolidation and learning

<b>Cohort 3</b>	Year 3	20	Replication and robustness of results
<b>Total</b>		<b>60</b>	Pilot scale of the SIB

*Table 5 - Cohort structure and time horizon of the SIB*

## **7. Outcome metrics and public value**

### **7.1. Concept and rationale**

In a Social Impact Bond (SIB), outcome metrics act as the structural bridge between the social intervention, independent verification, and performance-based payment. In the context of Just a Change, these metrics make it possible to objectively evaluate whether rehabilitation works achieve essential improvements in safety, habitability, and thermal comfort, while also capturing indirect gains in health and energy two domains consistently affected by housing deprivation.

Housing quality is internationally recognised as a determinant of health. The World Health Organization (2018) and NICE (2015) show that cold, damp, and poorly ventilated homes are associated with significantly higher rates of respiratory and cardiovascular illness. Evidence from the United Kingdom and New Zealand further demonstrates that insulation, ventilation, and structural repair programmes reduce hospital admissions, emergency visits, and medication consumption. These findings justify a dual structure that distinguishes the metric that triggers payment from those that document broader public value: a single primary, auditable indicator used for contractual purposes, and a wider set of secondary indicators that demonstrate the full social impact of the intervention.

### **7.2. Primary outcome metric (payable)**

#### ***“Decent Home” Certification***

The primary metric corresponds to the “Decent Home” certification issued by an independent technical auditor at the conclusion of rehabilitation works. This binary pass/fail assessment minimises ambiguity and administrative burden, ensuring auditability and contractual clarity.

Certification requires compliance with several technical dimensions: watertightness and absence of severe leaks, minimum structural stability, safe electrical and plumbing networks, adequate ventilation, satisfactory insulation, and essential safety and accessibility conditions.

Payment is calculated as: **Payment = N\_certified homes × 17 500 €**

This calculation is subject to two fundamental rules. First, a minimum quality threshold is set, whereby payment is only made if at least 85% of the planned dwellings obtain certification. Second, between 85% and 100% performance, a principle of proportionality applies, allowing payments to scale according to the results achieved. Based on these rules, three performance scenarios can be distinguished:

- *Success (≥95% - 100%)*: 19 to 20 homes certified. Although proportionality applies, reaching 95% automatically unlocks the full payment value for 20 homes, ensuring financial stability and recognising the difficulty of achieving perfect execution.
- *Achieved (≥85% and <95%)* - 17 to 18 homes certified, with proportional payment and IRR between 0% and 2%.
- *Fail (<85%)* - fewer than 17 certified homes, with payment equal to zero and the investor bearing the full loss for that cohort.

This structure protects the public authority while incentivising high performance and retaining contractual simplicity.

### **7.3. Secondary outcomes (non-payable)**

Although they do not influence payment, these outcomes validate the theory of change, substantiate the model’s preventive value, and quantify the broader social returns of the intervention. Their assessment occurs at baseline, T+6, and T+12 through complementary technical, social, and survey-based tools.

Secondary outcomes span four main domains, here reorganised into a more integrated narrative. First, energy efficiency and thermal comfort, rehabilitation substantially improves insulation, ventilation, and air tightness, contributing to higher thermal comfort and reduced energy needs, factors directly linked to lower prevalence of cold- and damp-related illnesses and reduced pressure on the National Health System. Second, well-being, autonomy, and perceived health, using WHO-5 indicators and Social Data Lab’s multidimensional assessment model, beneficiaries frequently report heightened safety, dignity, and autonomy at home, alongside emotional and psychological improvements. Perceived reductions in physical symptoms associated with cold and humidity reinforce the preventive health effects of the intervention. Third, social functioning and productivity, improved housing conditions reshape daily routines: reduced stress, renewed motivation for work or study, and increased confidence in hosting

visitors. These effects are especially relevant in households with children and young people, where improvements translate into enhanced educational and social participation. Finally, health proxies, without constituting clinical outcomes, reductions in respiratory symptoms, acute episodes, and perceived need for healthcare offer early signals of health improvement and feed directly into the savings model.

### 7.3.1. Measurement architecture

A standardised measurement cycle is applied to each cohort:

Stage	Timing	Purpose / Verification	Responsible entity
Baseline	Before intervention	Physical and social assessment (LNEC checklist + Social Data Lab tools)	JaC technical & social teams
Delivery (T)	Completion of works	“Decent Home” certification (payment trigger)	Independent technical auditor
T+6 months	6 months after	Intermediate assessment of comfort, safety, well-being	External evaluator / IPSS
T+12 months	12 months after	Final outcome evaluation and optional linkage to SNS data	Social Data Lab / evaluator

*Table 6 - Measurement architecture and verification stages applied to each cohort*

All data follow GDPR standards, and SNS data linkage occurs only with informed consent.

### 7.3.2. Public savings model

Housing rehabilitation has effects that go beyond the immediate improvement of living conditions, influencing public spending, particularly in the areas of health and energy. The public savings model seeks to quantify these effects prudently, translating part of the social impact of the intervention into monetary terms, without any influence on the payment logic of the Social Impact Bond.

Specifically, the model incorporates a deadweight of 10%, an attribution rate of 80%, and a discount rate of 3%, reflecting a prudent approach to attributing effects to the intervention.

Health savings result from estimated reductions in the use of emergency services, hospital admissions, and primary health care consultations, which are particularly sensitive to adverse housing conditions. For calculation purposes, unit costs from the One Value

([www.onevalue.gov.pt](http://www.onevalue.gov.pt)) portal are used, namely €43,70 per emergency episode, €3 120 per hospital admission, and €31 per consultation. Health savings per beneficiary are estimated according to the following expression:  $HS_k = (\Delta ER_k \times 43,70) + (\Delta H_k \times 3\ 120) + (\Delta PC_k \times 31)$ .

After adjustments, the results range from €1 150,18 in the conservative scenario to €6 284,41 in the optimistic scenario, reflecting different intensities of impact on healthcare utilization. In addition, the model estimates savings associated with reduced medication consumption, using as a reference the average cost per package defined by Infarmed, set at €8,66. The savings in medication per beneficiary are calculated according to the expression  $MS_k = \Delta RX_k \times 8,66$ , resulting in adjusted values ranging from €279,61 in the conservative scenario to €1,258.25 in the optimistic scenario.

The total estimated fiscal value per beneficiary corresponds to the sum of savings in healthcare and medication, according to the expression  $PS_k = HS_{k\_adj} + MS_{k\_adj}$ . The aggregate results point to a range between €3 774,76 in the conservative scenario and €22 627,99 in the optimistic scenario.

The model has an exclusively analytical function, highlighting the preventive nature of the intervention and its potential economic return, without establishing any direct relationship with contractual payment.

### **7.3.3. Implications for the SIB**

This outcome pricing architecture yields three strategic implications. First, contractual clarity and robustness with a single binary metric that simplifies audits, reduces ambiguity, and lowers transaction costs, strengthening public-sector readiness for outcome-based contracting. Second, operational alignment and consistent incentives by tying payments exclusively to the “Decent Home” standard, the model ensures that Just a Change and investors are fully aligned around technical quality and reliable execution, without metric overload. Finally, evidence of preventive public value, although the contract pays exclusively for certified homes, secondary indicators and the savings model demonstrate substantial social and fiscal returns, especially in health and energy. This positioning frames housing rehabilitation as a preventive public policy with measurable economic benefits, supporting future scaling and replication.

## **8. Financial model**

The financial model translates the operational design of the SIB, interventions, cohorts, costs, and payment mechanisms into a coherent system of financial flows, risk allocation, and remuneration conditions. Its function is to clarify how much capital is needed and when, how risk is distributed between the investor, the government, and Just a Change, and how the verified results are converted into payments.

The structure is based on three principles: simplicity (one result, one price, one verifier), proportionality (payments vary linearly with certified homes), and transparency (all formulas are based on actual costs and auditable data).

### **8.1. General structure of the model and financial cycle**

The SIB runs over three annual cohorts of 20 homes each. The financing uses a dynamic tranche mechanism, which significantly reduces the capital that the investor needs to put at risk: the investor only finances the direct cost of the first cohort (approx. €309 000). After the independent audit, the payment for results finances the next cohort, which in turn generates the flow that supports the last one.

At the end of the third cohort, the payment covers both the repayment of capital and the return, where applicable. This means that investors never risk more than the value of a single cohort, even if the total SIB envelope reaches around €955 000. This architecture reduces risk and is in line with international results-based financing practices.

### **8.2. Tariff structure (ValuePerHome)**

The fee of €17 500 per certified home is the central element of the payment mechanism. It results from a three-step process:

#### 1. Actual cost basis

An analysis of the direct costs of rehabilitation between 2021 and 2025 (at 2025 prices) shows a consistent average cost of  $\approx$  €14 260 per dwelling. This figure has been validated by internal data from three Camp In reports from 2025, annual reports, and detailed budgets, constituting the minimum operating floor.

#### 2. Prudential adjustments

To convert this cost into a contractual rate, it was necessary to accommodate: annual volatility of materials and logistics; specific requirements of performance-based contracts (independent audits, standardization, contingency reserves) and larger operational scale (more fields, more municipalities). With these adjustments, the prudential value stands at €15 000.

### 3. Inflation and monitoring costs (3 years)

Applying 3% annual inflation and 3% for M&E, the average amount needed to maintain financial balance over the three cohorts becomes €15 464.

### 4. Final increase to €17 500

Although a unit value of €15 464 is sufficient to ensure the financial balance of the model, the price per certified dwelling is set at €17 500. This adjustment responds to three main considerations. First, it reinforces the financial robustness of the pilot project and mitigates operational risks associated with implementation. Second, it ensures a minimum level of investor protection, allowing for an internal rate of return of between 2% and 4% in high-performance scenarios. Furthermore, although secondary outcomes do not directly influence performance-based payments, they are considered in setting the unit price, since in the baseline and optimistic scenarios, the increase over the break-even value represents only about 9% to 11% of the estimated public savings. Finally, even with this adjustment, the government maintains a net benefit, given that the estimated public savings, between €3 775 and €22 628 per dwelling per year, comfortably exceed the increase in the unit price.

The tariff is applied on a linear basis:

$$\text{Payment to investor} = N_{\text{certified homes}} \times 17\,500\text{€}$$

provided that  $\geq 85\%$  of homes in the cohort are certified. A single indicator triggers payment, ensuring simplicity, auditability, and absence of arbitrariness.

## **8.3. Performance structure and proportional payments**

The SIB payment logic is based on a simple and auditable mechanism: the “Decent Home” certification. Each dwelling that meets the technical criteria triggers the payment of a unit fee of €17 500, provided that the cohort reaches the quality floor of 85%.

Payments are therefore divided into three categories:

- Success ( $\geq 95\%$  - 100%): The level of operational excellence is achieved, with 19 to 20 homes certified. Payment is made in full in both cases.
- Achieved ( $\geq 85\%$  -  $< 95\%$ ): Proportional payments are guaranteed, but these reflect moderate performance. This range functions as a “minimum acceptable performance” zone.
- Fail ( $< 85\%$ ): The cohort does not generate any payment, eliminating public remuneration in situations of insufficient performance.

This architecture introduces predictability, reinforces accountability, and creates a clear gradient between minimum performance and operational excellence, in line with the international principle of “no outcome, no payment.”

#### **8.4. Investor return and incentive structure**

The incentive structure stems directly from the payment rules but translates into a distinct financial profile.

With a unit tariff of €17 500:

- Success ( $\geq 95\%$ ): 19 or 20 certified homes, representing a payment of €350 000 and delivering an IRR  $\approx 4\%$
- Achieved ( $\geq 85\%$  -  $< 95\%$ ): Payments between €297,500 and €315 000. The IRR becomes marginal or negative, reflecting significant financial risk. Thus, this range guarantees some capital recovery but does not reward the investor.
- Fail ( $< 85\%$ ): The absence of payments means that the investor bears the entire annual loss, reinforcing the risk-performance character typical of SIBs.

In this way, the structure creates strong incentives for performance  $\geq 95\%$ , ensures operational discipline, and protects the public budget by avoiding payments in situations of low effectiveness.

#### **8.5. Risk allocation**

Risk distribution in the SIB follows a clear and balanced logic. The investors, most likely corporates and foundations, assume full financial risk, financing the initial implementation and bearing any operational failures that result in certifications below the defined threshold. Then Just a Change is responsible for execution, technical quality, and compliance with the standards required for independent certification. It does not assume direct financial risk, but its

operational performance determines the investor's remuneration. Finally, the public entity, which is Portugal Inovação Social in this case, only makes payments after independent verification of results, ensuring efficiency and protection of public funds.

The tranching mechanism, which reuses the performance payments from each cohort to finance the next, limits the investor's maximum exposure to the equivalent of a single cohort (around €309,000), making the SIB financially sustainable and more attractive to investors.

## **8.6. Rationality and replication potential**

The financial model favors simplicity, verifiability, and scalability. The choice of a single result indicator, a fixed fee per certified home, an independent verifier, and a system of proportional and transparent payments reduces monitoring costs and facilitates future adoption of the instrument by public entities.

The structure presented demonstrates that it is possible to finance housing rehabilitation with private capital, remunerating only verified results and generating, at the same time, quantifiable public value (as demonstrated in the savings model for the National Health Service). This combination of technical rigor and contractual simplicity reinforces the potential for replicating the SIB in other regions with similar housing needs.

## **9. Analysis and Scenarios**

### **9.1. Analytical approach**

This section analyses the financial performance of the SIB under different implementation conditions, combining the results of the financial model in Excel with the payment structure defined in the previous chapter. The objective is to understand how the fee per certified home, performance levels, and the dynamics of the tranches influence the economic balance between the investor and the public sector. The analysis is organized into three dimensions: (i) financial behavior of the SIB with the base tariff of €17 500; (ii) sensitivity of the internal rate of return (IRR) to tariff variation; and (iii) economic and strategic adequacy of the chosen tariff.

### **9.2. Base scenario with a fee of €17 500**

With the fee set at €17 500 per certified home, the financial model projects inflows and outflows over the three cohorts, following the dynamic tranche system. This mechanism limits the capital at risk and ensures that the investor finances only one cohort at a time.

When performance reaches high levels ( $\geq 95\%$ ), payment is considered in full, corresponding to the total value of the 60 houses planned, even in cases where 19 houses have been certified per cohort. In this range, the IRR is b 4% (95% - 100%). Intermediate performances ( $\geq 85\%$  and  $< 95\%$ ) result in proportional payments, but these are insufficient to generate a significant financial return. Whenever the certification rate falls below the minimum threshold of 85%, no payment is made, and the investor bears the entire loss of the associated tranche.

This differentiation between performance levels creates a clear alignment between social impact and financial return, strongly rewarding high results and penalizing insufficient performance.

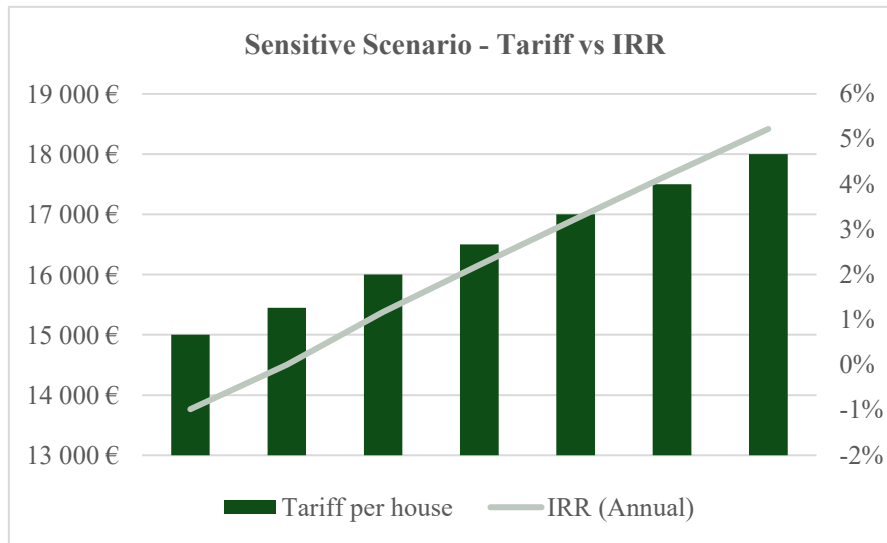
Scenario	Certification Rate (%)	Payment	Approx. IRR
Success	$\geq 95\%$	Full payment (equivalent to 60 homes)	+4%
Achieved	$\geq 85\%$ and $< 95\%$	Proportional payment (51 - 57 homes)	+2%to negative
Fail	$< 85\%$	€0	Full loss of the investment

*Table 7 - Payment scenarios and investor returns under the base case*

### **9.3. Sensitivity scenarios: fee vs. IRR**

To assess the financial robustness of the SIB and understand under what conditions the investor receives a positive return, a sensitivity analysis of the fee was conducted. Keeping the other variables constant (number of houses, reinvestment logic, and time horizon), the investor's cash flows depend entirely on the amount received in the last year.

The main result is that small tariff variations produce significant changes in the IRR, a typical behavior in dynamic tranche models. Graph 7 shows this behavior:



*Graph 7 - Sensitivity analysis between tariff and IRR*

As can be seen, modest increases in the fee result in proportional improvements in profitability. This behavior shows that the fee adopted (€17 500) positions the SIB as a moderate return instrument in a successful scenario, in line with European impact benchmarks (2% - 6%).

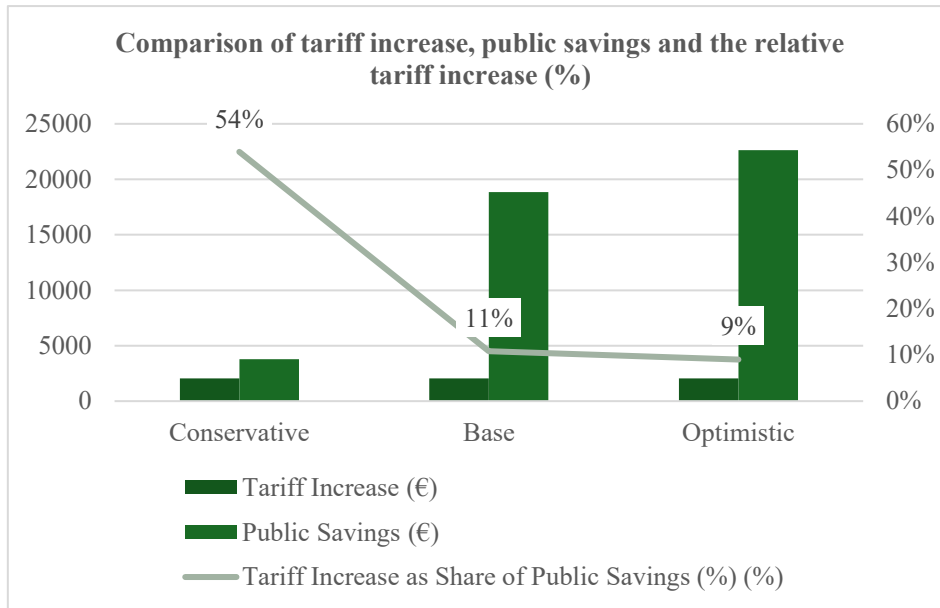
#### **9.4. Comparison between fee, operating cost, and public savings**

The economic justification for the fee stems not only from operating costs, but also from the magnitude of estimated public savings. The following table compares the inflated operating cost (€15 464), the contractual fee (€17 500) and the net public savings per dwelling, estimated in the conservative, base, and optimistic scenarios.

Indicator	Value (€)
Average operational cost (2025)	15 464 €
Contractual tariff	17 500 €
Increase over cost	+2 036 € (+13,2%)
Public savings - conservative scenario	3 774,76 €
Public savings - base scenario	18 853,23 €
Public savings - optimistic scenario	22 627,99 €

*Table 8 - Comparison between contractual tariff, operational cost and estimated public savings per dwelling*

The tariff increase (+€2 036) represents +13.2% compared to the average operating cost; 54% of public savings in the conservative scenario; 11% in the base scenario and 9% in the optimistic scenario. To reinforce this comparison, Graph 8 visually translates the relationship between the



*Graph 8 - Relative size of the tariff increase compared to estimated public savings*

tariff increase, the estimated public savings, and their relative weight, intuitively demonstrating how the cost increase is largely outweighed by the economic benefit generated.

The interpretation is clear, even the tariff increase of €2 036 is significantly below the estimated savings in the three scenarios, confirming that the State maintains a net benefit even after paying the tariff.

### **9.5. Interpretation of the scenarios**

An integrated reading of the scenarios allows us to draw conclusions about the viability of the model. Firstly, the €17 500 tariff positions the SIB as a balanced instrument: it ensures that operating costs are covered, keeps the project financially stable over the three cohorts, and guarantees a level of return compatible with the risk assumed by investors, without generating additional costs for the State in the successful scenario. The rule of full payment from 95% onwards reinforces this stability, avoiding excessive fluctuations in cash flows and offering greater predictability to the model, without compromising the requirements associated with the “Decent Home” certification.

Sensitivity analysis also shows that the instrument can be calibrated relatively easily. Small adjustments to the tariff allow investors' returns to be brought closer to international social impact benchmarks, while maintaining the logic of the contract and operational simplicity. This flexibility is particularly important in a pilot project, where institutional learning and testing of the model are of strategic value.

The comparison between the tariff and the expected public savings confirms that the SIB generates a clear net benefit for the public sector. Even after the tariff update, the increase does not come close to the estimated savings, which remain higher in all modeled scenarios. This difference reinforces the economic rationality of the instrument and demonstrates that choosing a tariff slightly above cost does not compromise fiscal sustainability.

The results as a whole show that the proposed model constitutes a robust argument for the adoption of the SIB in the housing sector and for its possible expansion to other regions and types of intervention.

## **10. Limitations**

The analysis developed in this thesis is mainly conditioned by the availability and quality of data. The absence of micro-information on the use of the SNS by beneficiaries meant that estimates of public savings had to be constructed using simulation models based on unit costs and international evidence. The figures presented should be interpreted as conservative estimates rather than direct empirical measurements.

The calculation of the cost per dwelling, although supported by robust historical data from Just a Change, does not eliminate uncertainties associated with construction price volatility, territorial differences, or new technical requirements.

Financially, the model uses simplified performance categories (Success, Achieved, Fail) and assumes reinvestment without delays and tariff stability across the three cohorts. These assumptions are appropriate for a feasibility study but may differ from actual implementation conditions.

It should also be noted that the study focuses only on a fraction of Just a Change's activity, which means that the results relate to this specific model and not to all of its operations.

Finally, the secondary results are based on surveys and assume deadweight and attribution factors, reflecting the difficulty of causally isolating the effects of intervention in complex social contexts.

## **11. Conclusions**

This study demonstrates that housing rehabilitation, when structured through a results-based financing model, can be an effective and financially responsible response to the problem of housing poverty in Portugal. The analysis confirms that Just a Change's intervention has the fundamental characteristics to operate in a Social Impact Bond: a clear operating model, consistent evidence of impact, established operational capacity, and a set of measurable and verifiable results.

The design of the SIB, based on a single payable indicator, a dynamic tranche mechanism, and a calibrated fee of €17 500, is aligned with international best practices. The financial model offers predictability for investors, risk control for the public sector and, above all, ensures that public payments depend exclusively on the delivery of decent housing to vulnerable families. The estimated public savings reinforce the economic rationale for the intervention, showing that housing improvements can translate into tangible fiscal benefits in terms of health and well-being.

Although constrained by data limitations and the pilot scale of the study, the exercise demonstrates that a SIB applied to housing is not only feasible but potentially transformative. For the public sector, it is a way to direct resources toward preventive solutions; for investors, it represents an impact instrument with limited risk; for social organizations, it opens up space for greater stability, planning, and scale.

A housing rehabilitation SIB has the capacity to generate social and economic value simultaneously, representing a credible step towards the modernization of housing policies and the dissemination of innovative financing models in Portugal. This dissertation and analysis will serve as the basis for Just a Change to implement a SIB in Portugal and raise funds in accordance, by partnering with Portugal Inovação Social. The experience outlined here provides a concrete basis for future pilots, regional adaptations, and empirical research that will allow for a deeper understanding of the relationship between housing conditions, public health, and social investment.

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## Appendices

### Appendix A - SIB Financial Assumptions and Parameters

Name	Value	Notes
Scenario	SUCCESS	SUCCESS / ACHIEVED / FAIL
Duration years	3	Contract duration (years)
Homes Y1	20	Planned SIB homes in Year 1
Homes Y2	20	Planned SIB homes in Year 2
Homes Y3	20	Planned SIB homes in Year 3
DirectCostPerHome	15 000	Base direct rehab cost per home in Year 1 (excluding M&E and inflation)
ValuePerHome	17 500	Average value per certified home, based on total SIB cost (incl. M&E and inflation) divided by total number of homes
SuccessRate	95,0%	Share of planned homes certified
QualityFloor	85,0%	Min. share of planned homes certified to trigger payment
ME Percent	3,0%	Monitoring & Evaluation as % of direct costs
Inflation	3,0%	Annual inflation assumption
IRR Cap	9,0%	Maximum investor IRR (annual cap)

**AchievementRate** 0,95

Appendix B - Outcome Payments and Investor Returns

Key Metric	Value
Total SIB envelope (JaC outflows, €)	955 088
Outcome payment to INVESTOR (Scenario)	1 050 000
Scenario (selector)	SUCCESS
Total planned homes	60
Tariff per home (€)	17 500
Certified homes (95%)	57
Quality floor (%)	85,0%
Success rate (est.)	95,0%
Investor tranches total (€)	309 000
Investor XIRR (Scenario)	4%

<b>Outcome if SUCCESS (95% - 100%)</b>	1 050 000
<b>Outcome if ACHIEVED (CompletionRate)</b>	980 000
<b>Outcome if FAIL (&lt;85%)</b>	0

Appendix C - Unit Cost Structure and Tariff Definition

Indicator	Value (€)
Avg cost (2025, 3 fields)	€19 027,44
Avg cost (2021 - 2024, updated)	€12 087,41
Minimum annual value (2021 - 2025)	€11 039,10
Maximum annual value (2021 - 2025)	€19 027,44
Total houses (Camp In, 2025)	105
Global weighted average (2021 - 2025)	€14 256,17

Appendix D - Changes in healthcare utilisation (pre- and post-intervention, per household)

Cohort	HHs	ER_pre	ER_post	H_pre	H_post	PC_pre	PC_post
2026_Conservative	20	0,6	0,5	0,20	0,18	6,0	5,5
2026_Base	20	0,6	0,4	0,20	0,12	6,0	4,5
2026_Optimistic	20	0,6	0,3	0,20	0,08	6,0	4,0

Appendix E - Aggregated reductions in healthcare utilisation and estimated health savings by scenario

Cohort	$\Delta$ ER per HH	$\Delta$ H per HH	$\Delta$ PC per HH	$\Delta$ ER total	$\Delta$ H total	$\Delta$ PC total	HS_raw (€)	HS_adj (€)
2026_Conservative	0,10	0,02	0,5	2,0	0,4	10	1 645,40	1 150,18
2026_Base	0,20	0,08	1,5	4,0	1,6	30	6 096,80	4 261,84
2026_Optimistic	0,30	0,12	2,0	6,0	2,4	40	8 990,20	6 284,41

Appendix F - Estimated medication consumption and savings by scenario

Cohort	HHs	RX_pre (€/year)	RX_post (€/year)	MS_raw (€)	MS_adj (€)
2026_Conservative	20	300	280	400,00	279,61
2026_Base	20	300	240	1 200,00	838,83
2026_Optimistic	20	300	210	1 800,00	1 258,25

Appendix G - Total estimated public savings (optimistic scenario)

Metric	Value
Total_HS (sum of HS_adj)	3 774,76 €
Total_MS (sum of MS_adj)	18 853,23 €
Total_Public_Savings	22 627,99 €